SPECIFICATION AMENDMENTS

Please replace the paragraph beginning at page 7, line 31 of the Substitute Specification (page 8, line 31 of the 7 April 2005 Response to Notice of Non-Compliant Amendment) with the following paragraph:

An embodiment of the invention is described in figure 1 and another embodiment of the invention is described in figure 2. In both figures, 1 is a valve mechanism for the direction of air (gas) in alternating directions through the equipment. 2 and 3 are connecting ducts for incoming raw and outgoing cleaned gas respectively. 4 and 5 are wind boxes for distribution and collection of air (gas) that goes through the heat transfer matrix 6. In the design shown in figure ~~1~~ 2 this matrix is divided into two parts 6 and 6' surrounding a combustion chamber 7 which is absent in the design shown in figure ~~2~~ 1 where the heat exchanging matrix stretches all the way between the two wind boxes 4 and 5. Both designs comprises means for heating in a hot zone 12: in figure 1 in the form of electric heaters 8 and in figure 2 in the form of a burner 9. Both designs also incorporate catalytically active zones 10 and 11 within the heat exchanging matrices. The catalytically active zones are ~~sperated~~ separated from the hot zone 12 by at least one intermediate zone 14. In the design of figure 1, the temperature is high in the center, or ~~not~~ hot zone 12, of the heat exchanging matrix 6 and gradually decreases towards top and bottom. In the design in figure 2 the temperature is high in the ~~hotzone/~~ hot zone or in the combustion chamber 7, 12 and the upper parts of the intermediate zones 14 of heat exchanging matrixes 6 and 6'. The temperature gradually decreases towards the bottom of the heat exchanging matrices. By regenerative heat exchange and regular switching of the direction of flow through the equipment these temperature patterns can be generally maintained without excessive heat demands being put on the heating means 8 (figure 1) and 9 (figure 2). When the oxidation of pollutants in the gas stream produces enough energy they can be switched off altogether.

Please replace the paragraph beginning at page 8, line 17 of the Substitute Specification (page 9, line 17 of the 7 April 2005 Response to Notice of Non-Compliant Amendment) with the following paragraph:

In operation raw polluted gas is first mixed with ammonia, urea, or other compound able to act as a selective nitrogen oxides reducing agent. The mixture is then introduced into a cold end of a heat exchanger matrix and by passing through it is successively heated to oxidation or decomposition temperature which is attained in the inner part of the equipment i.e. the hot center of the matrix in fig 1 including the hot zone 12 and at

least a ~~protion~~ portion of the intermediate zone 14 or the intermediuate zone 12 at the uppermost parts of the matrices 6 and 6' and the combustion chamber hot zone 7, 12 in fig 2. Before reaching this high temperature however the mixture is passed through the catalytically active zone 10, 11 of the heat exchanger matrix 6 or 6'. Here nitrogen oxides react with the mixed in reducing agent and are thus removed. The catalytic zone 10, 11 is placed in the heat exchanging matrix in such a way that the temperature conditions there are favourable for this reduction and a selective catalytic reaction (SCR) takes place. The reaction takes place at a substantially lower temperature than an SNCR reaction and this together with the use of catalyst makes a more thorough reduction possible as compared with an operation according to European patent EPC 609 288 and lower levels of concentration of nitrogen oxides are obtainable. When the inlet concentration of nitrogen oxides is low the difference becomes significant.